



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

Robert L. Morgan
State Engineer

1636 West North Temple, Suite 220
Salt Lake City, UT 84116-3156
801-538-7240
801-538-7467 (Fax)

February 6, 1995

Mr. Craig Davie
P. O. Box 905
Milford, UT 84751

Dear Mr. Davie:

Re: Meter Suppliers

I have been asked to answer your request for information regarding measuring device suppliers. Attached, please find a list of water meter suppliers and their phone numbers.

I have been informed that your pumping system is operating at low pressure and that the discharge pipe may not be flowing full at all times during the operation of the well. In order for any meter to work properly it is necessary that the pipe always flows full. Therefore, I recommend that one of the following alternatives be implemented to force the pipe to flow full.

1. Raise the pipe exiting the meter to a point above the level of the meter.
2. Install a section of reduced pipe diameter in the discharge pipe.
3. Install a butterfly valve downstream of the meter.
4. Insert a baffle in the pipe downstream from the meter location.

Please evaluate the above alternatives and implement the one that best applies to your system.

Propeller meters are likely to work well in your situation provided that the pipe is flowing full and that the velocity of water exceeds 1 foot per second. When requesting information from the manufacturers be sure to explain your particular situation and to get a meter that is not too susceptible to sand and fine particles in the water. If you experience problems with sand and fine particles in the irrigation water, this could possibly be resolved by installing a screen or filter in the pipe above the meter location.

When ordering a meter make sure to give the meter supplier the exact inside diameter of the pipe so that the meter can be adjusted to fit your situation. It is also important that the meter be installed in a location recommended by the manufacturer. Generally, the minimum requirement is 5 pipe diameters of straight pipe upstream and 1 diameter downstream from a fitting or flow regulating device.



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Western Engineering in Salt Lake City sells an impeller type meter (TR400 flow transducer) for about \$500 (including the meter and the display unit) that may be applicable to use in your situation. If you are interested in obtaining more information about this particular meter please contact Mr. David Nyman at (801) 268-3333.

I have attached some information on propeller meters that may be helpful to you. If you have any questions or need any assistance in selecting and/or installing the appropriate meter, please do not hesitate to contact me at (801) 538-7384.

Sincerely,



Gertrudys B. Adkins, Ph. D.
Distribution Engineer

Enclosures